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Wright Scholar intern program expands across base

by John Horner, Propulsion Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — While kids scramble to find summer jobs, 49 of the area's brightest high school students have been selected to learn about science and engineering under the mentorship of base employees working in research laboratories.

This intern program, known as "Wright Scholars," began in the Air Force Research Laboratory's Propulsion Directorate last summer as a pilot program with participation by Air Vehicles and Human Effectiveness Directorates.

The lab provides 10-12 weeks of hands-on experience designed to foster learning in science and engineering.

The pilot program was a success and has expanded into the laboratory's Sensors and Information Directorates as well as Air Force Institute of Technology and the Aeronautical Systems Center Engineering Directorate, nearly doubling the number of student participants from last summer.

"This program has far exceeded my expectations," said Joe Miller, graduate of Dayton Christian School and member of last year's class. "I figured I'd be doing menial work at best. But I got to do more than just analyze data. I set up high-speed cameras and actually built the structures to put them on during pulse detonation engine tests."

Another student, Matt Sterling from Waynesville, commented, "My experience with machinery and lab work was great. I definitely want to go into the engineering field, and the Wright Scholar program gave me a taste of what it would be like." Miller has returned this summer as a college intern completing his first year at Cedarville, and Sterling will return as a senior Wright Scholar.

The paid internship gives the students, from 24 high schools and cities as far away as Corvallis, Ore., an opportunity to assist with on-site research and apply their knowledge of chemistry, physics and mathematics to various types of engineering careers. The juniors and first-time seniors will participate in a three-day jet engine propulsion course at Air Force Institute of Technology.

New this year, the intern program is partnering with the University of Dayton, which will present an on-campus class highlighting opportunities in science and engineering for the junior Wright Scholars. The program will continue with the weekly lecture series here for all students. Topping the list of planned subjects will be presentations on pulsed detonation engines, scramjets, optics and lasers, combustion, rockets and plasma research.

The program pays off in exposing these students to hands-on research. The program is molded to show top high school students what engineering is all about and to give them a chance to explore some of the career opportunities the Air Force has to offer.

For 10-12 weeks, the scientists in training will join forces with their assigned mentors to conduct individual research projects involving issues like three-dimensional modeling of turbine engines, fuel composition analysis and hydrocarbon-fueled supersonic combustion engines. Other topics include studies in jet engine and air vehicle aerodynamics, human effectiveness, combustion science and product engineering.

Students who express an interest in continuing to work for the Air Force after completion of their Wright Scholar internships are encouraged to apply for college intern or co-op positions at the base.

Next year's calls for applications will be on the Propulsion Directorate Web site, www.pr.afrl.af.mil, in the fall for the Wright Scholar class of 2004 and will be open to both seniors and juniors. The deadline for submittal is Jan. 16. @